

### SPONTANEOUS FETAL DEATHS

#### INTRODUCTION

A *fetal death* is the death of a human fetus that occurs prior to its expulsion or extraction from its mother, irrespective of the duration of pregnancy. In Louisiana a *spontaneous fetal death* (also referred to as stillbirth) is a fetal death that meets these criteria:

- 1. The fetus survived at least 20 weeks gestation or weighed at least 350 grams, and
- The death was not the result of an induced termination of pregnancy.

### **Purpose of Spontaneous Fetal Death Surveillance**

As with infant mortality, a high rate of fetal deaths reflects unfavorable environmental influences and/or the unavailability of medical care. Compared with infant mortality, however, the factors contributing to fetal deaths have been studied less, therefore limiting the understanding of their etiology. Consequently, fewer prevention efforts have been initiated to reduce the rate of fetal deaths. Overall, the depth and quality found in fetal death data is poorer than that of live birth data.

Fetal death surveillance is important in the evaluation of adverse reproductive outcomes and in the identification of factors that result in fetal deaths. The goal of fetal death surveillance is the identification of high-risk populations and the development of risk-reducing interventions.

### Source of Data: Certificate of Fetal Death (Stillbirth)

Spontaneous fetal death information presented in this report is gathered from data recorded on the *Certificate of Fetal Death* for spontaneous fetal deaths that occurred among pregnant Louisiana residents during 2001. The 1992 Revision of the Model State Vital Statistics Act and Regulations indicates that fetal deaths of at least 20 weeks gestation or 350 grams should be reported to the Vital Records Registry within 5 days of delivery, or as otherwise directed by the State Registrar. A physician or coroner in consultation with the parent(s) completes information on the fetal death certificate. <sup>1</sup>

Death statistics are compiled in accordance with World Health Organization (WHO) regulations, which require member nations to classify causes of death according to the current revision of the International Statistical Classification of Disease, Injuries, and Causes of Death. Fetal deaths that occurred in 2001 are coded in accordance with the tenth revision (ICD-10).

All of the causes of death described in this report are *underlying causes of death*, defined as the disease or injury that initiated the sequence of events leading to death. Secondary causes of death, which are also recorded on the death certificate, are not presented in this report.

The degree of registration completeness for spontaneous fetal deaths is unknown, but some under-registration is likely, especially for fetal deaths near 20 weeks gestation or under 500 grams weight at delivery. However, reporting is believed to be relatively complete and more reliable for fetal deaths at a gestation of 28 weeks or more.

**FETAL DEATHS: Introduction** 

### **FETAL DEATH COUNTS AND RATES**

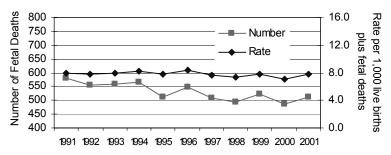
In 2001, 537 fetal deaths were reported to the Vital Records Registry, with 510 of these deaths meeting Louisiana's definition<sup>2</sup> of a spontaneous fetal death (i.e., the fetus survived at least 20 weeks gestation or weighed at least 350 grams).

The 27 fetal deaths that failed to meet these criteria have been excluded from analysis. They are included, however, in *Table F10*: Causes of Fetal Deaths (page 65) and in the parish and region tables (found on the diskettes which accompany this report).

Louisiana's 2001 fetal mortality rate was 7.8 fetal deaths per 1,000 live births plus fetal deaths. This rate was higher than the 2000 rate of 7.1 per 1,000 live births plus fetal deaths (*Figure F1*, *Table F1*).

Gestational ages reported for Louisiana fetal deaths occurring in 1995 or later are derived by using the National Center for Health Statistics' formula for the calculation of gestational age. This formula calculates gestational age by combining information collected in the "Date Last Normal Menses Began" and "Clinical Estimate of Gestation" sections of the Louisiana Certificate of Fetal Death (Stillbirth). It also takes into account the fetal birthweight relative to gestational age. Prior to 1995, "Clinical Estimate of Gestation" was not recorded on Louisiana's Fetal Death

Figure F1. Number and Rates of Fetal Deaths Louisiana, 1991-2001



Fetal death defined as gestational age >=20 weeks or birthweight>=350 grams

Table F1. Number and Rates of Fetal Deaths Louisiana, 1991-2001

Year	Number	Rate <sup>⁺</sup>
1991	581	8.0
1992	556	7.8
1993	560	8.0
1994	564	8.2
1995	510	7.7
1996	547	8.3
1997	509	7.7
1998	495	7.4
1999	521	7.7
2000	487	7.1
2001	510	7.8

\*Rate per 1,000 live births plus fetal deaths. Fetal death defined as gestational age >= 20 weeks or birthweight >=350 grams)

Certificates. Therefore, gestational ages reported for the years prior to 1995 are calculated by subtracting the "Date Last Normal Menses Began" from the "Date of Delivery", as recorded on the Fetal Death Certificates. The National Center for Health Statistics (NCHS), which reports national fetal death information, uses only gestational age at least 20 weeks, in its definition of fetal death. To facilitate comparison between Louisiana and

the United States, fetal death data based on the NCHS definition are used in all Louisiana and United States data presentations.

Fetal mortality rates for Louisiana and United States have been similar the last ten years. Both rates have declined during this period (*Table F2*, *Figure F2*).

Table F2. Fetal Mortality Rates<sup>+</sup> Louisiana and United States, 1991-2001

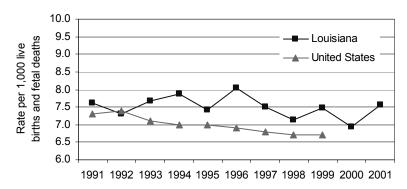
Year	Louisiana	United States
1991	7.6	7.3
1992	7.3	7.4
1993	7.7	7.1
1994	7.9	7.0
1995	7.4	7.0
1996	8.0	6.9
1997	7.5	6.8
1998	7.1	6.7
1999	7.5	6.7
2000	6.9	Not Available
2001	7.6	Not Available

\*Rate per 1,000 live births plus fetal deaths. Fetal death defined as gestational age >= 20 weeks. Note: Louisiana rates in this table will differ from those listed in Table F3, given that fetal death is defined here by United States standards, rather than Louisiana standards, in order to allow for comparison with the national rates.

Source: Louisiana State Center for Health Statistics,

National Center for Health Statistics

Figure F2. Fetal Mortality Rates Louisiana and United States, 1991-2001



Fetal death defined as gestational age >= 20 weeks

## **MATERNAL PROFILE**

### Race and Age of Mother

As with the overall fetal mortality rate, rates of fetal deaths by race in Louisiana have changed little over the past decade. Rates among blacks have been consistently

higher than for whites over the past decade (Figure F3, Table F3). Fetal mortality rates for blacks in Louisiana have been lower than corresponding national rates during the past decade. Rates for whites in Louisiana during the past ten years have mirrored closely the

corresponding national rates.

Because of differences between state and national distributions of race, Louisiana's overall rates have been slightly higher than overall national rates during the past decade (Figure F4 and Table F4, on following page).

Table F3. Fetal Mortality Rates<sup>†</sup> by Maternal Race Louisiana, 1991-2001

Year	All Rac	es <sup>+++</sup>	Whit	te	Black		
i cai	Number	Rate	Number	Rate	Number	Rate	
1991	581	8.0	211	5.2	369	12.0	
1992	556	7.8	247	6.2	304	10.1	
1993	560	8.0	228	5.9	326	10.9	
1994	564	8.2	223	5.9	336	11.6	
1995	510	7.7	215	5.7	286	10.6	
1996	547	8.3	236	6.3	300	11.2	
1997	509	7.7	220	5.8	276	10.1	
1998	495	7.4	203	5.3	269	9.7	
1999	521	7.7	215	5.6	288	10.5	
2000	487	7.1	217	5.7	263	9.2	
2001	510	7.8	211	5.7	288	10.6	

\*Rate per 1,000 live births plus fetal deaths in race group.

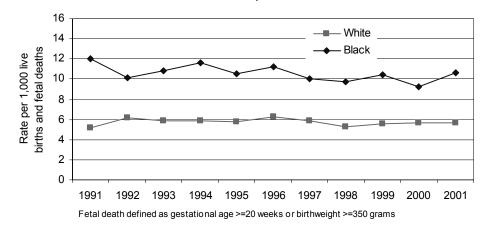
Fetal death defined as gestational age >=20 weeks or birthweight >=350 grams

"All Races" Includes white, black, other and unknown

Of the 510 fetal deaths in 2001, 211 (41.4%) were to white women and 288 (56.5%) were to black women. Black women were more likely than white women to experience a fetal death, at a rate of 10.6 compared with 5.7 fetal deaths per 1,000 live births plus fetal deaths in racespecific groups (*Table F3*). This racial disparity was consistent within all age groups.

Women aged 35 and older reported the highest fetal mortality rate, at 10.7 fetal deaths per 1,000 live births plus fetal deaths. Black mothers 35 years

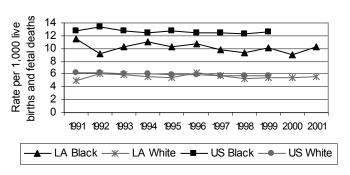
Figure F3. Fetal Mortality Rates by Maternal Race Louisiana, 1991-2001



and older had the highest fetal mortality rates at 12.5 fetal deaths per 1,000 live

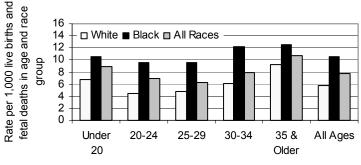
births plus fetal deaths (Figure F5, Table F5).

Figure F4. Fetal Mortality Rates by Maternal Race Louisiana and United States, 1991-2001



(Fetal death defined as gestational age >=20 weeks)

Figure F5. Fetal Mortality Rates by Maternal Race and Age Louisiana, 2001



Maternal age group in years

Fetal death defined as gestational age >=20 weeks or birthweight>=350 grams

Table F4.
Fetal Mortality Rates by Maternal Race
Louisiana and United States, 1991-2001

	Louis	siana		United	States		
Year	All Races +++	White	Black	All Races +++	White	Black	
1991	7.6	4.9	11.5	7.3	6.2	12.8	
1992	7.3	6.0	9.2	7.4	6.2	13.3	
1993	7.7	5.8	10.2	7.1	6.1	12.8	
1994	7.9	5.6	11.0	7.0	6.0	12.5	
1995	7.4	5.5	10.2	7.0	5.9	12.7	
1996	8.0	6.2	10.8	6.9	5.9	12.5	
1997	7.5	5.8	9.8	6.8	5.8	12.5	
1998	7.1	5.2	9.4	6.7	5.7	12.3	
1999	7.5	5.4	10.2	6.7	5.7	12.6	
2000	6.9	5.5	9.0	Not A	vailable		
2001	7.6	5.6	10.2	Not Available			

<sup>\*</sup>Rate per 1,000 live births plus fetal deaths. Fetal death defined as gestational age >=20 weeks.

Note: Louisiana rates in this table will differ from those listed in Table F3, given that fetal death is defined here by United States standards, rather than Louisiana standards.

Source: Louisiana State Center for Health Statistics,

National Center for Health Statistics

Table F5.
Fetal Mortality Counts and Rates<sup>+</sup> by Maternal Race and Age
Louisiana, 2001

	Under 20		20-24		25-29		30-34		35 & Older		All Ages	
Race	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate
All Races <sup>+++</sup>	94	8.9	148	6.9	102	6.3	90	7.9	64	10.7	510	7.8
White	29	6.8	46	4.4	48	4.7	48	6.0	37	9.2	211	5.7
Black	65	10.5	100	9.5	53	9.5	38	12.2	23	12.5	288	10.6

Rate per 1,000 live births plus fetal deaths. Fetal death defined as gestational age >=20 weeks or birthweight >=350 grams.

<sup>&</sup>quot;All Races" includes white, black, other, and unknown

<sup>+++ &</sup>quot;All Races" includes white, black, other, and unknown. "All Ages" contains age unknown.

### **Prenatal Care**

Prenatal care is recognized as an important means of identifying women at high risk of adverse pregnancy outcomes, such as infant mortality and low birthweight, and providing appropriate medical, nutritional, and educational interventions to reduce their risk. Assessing the role of prenatal care in fetal mortality, however, is complicated by differences among women with regard to health and behavior, trimester of entry into prenatal care, and opportunity to obtain prenatal care because of shortened length of pregnancy. Furthermore, fetal death certificates include limited information on prenatal care and do not assess the quality of care.

Women who received no prenatal care during pregnancy were more than four times as likely to experience a fetal death as women who had at least one prenatal visit during their pregnancy. For this report "no prenatal care" is defined as reporting no prenatal visits during the pregnancy. "Any prenatal care" refers to live births for which the mother had at least one prenatal care visit. The rate of fetal deaths among women with no prenatal care was 29.1 fetal deaths per 1,000 live births plus fetal deaths. Among women who received some type of prenatal care, the rate was 6.9 (Table F6).

Table F6. Number and Rates<sup>+</sup> of Fetal Deaths by Prenatal Care Status and Race Louisiana, 2001

	No C	Care	Any (	Care
Race	Number	Rate	Number	Rate
All Races***	24	29.1	444	6.9
White	***		199	5.4
Black	22	33.8	237	9.0

<sup>\*</sup>Rate of occurrence per 1,000 live births plus fetal deaths in specified group.

Fetal Death defined as gestational age >= 20 weeks or birthweight >= 350 grams

Examination of fetal deaths in the year 2001, with regard to prenatal care by race and age resulted in counts smaller than twenty. Counts less than twenty are not sufficient to calculate rates because they are sensitive to yearly fluctuations and result in unstable rates. To increase the size of the counts used to calculate race and age-specific prenatal care rates, data for 1997 through 2001 were combined to produce five-year (1997-2001) rates.

For the five-year period, fetal death rates for women with and without prenatal care during pregnancy (all races and age groups combined) were similar to those seen in 2001 alone. Among women with no prenatal care, the rate was 37.4 fetal deaths per 1,000 live births plus fetal deaths. Among women who received some type of prenatal care, the rate was 6.5 fetal deaths per 1,000 live births plus fetal deaths.

Rates calculated using 1997-2001 aggregate data showed that a higher rate of fetal deaths among women with no prenatal care was apparent in both black and white

women. White women had a higher fetal death rate per 1,000 live births plus fetal deaths for the five year combined period than black women, at 39.6 and 36.9, respectively.

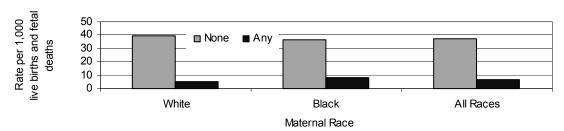
Rates for the 1997-2001 period also showed that white women who received no prenatal care were more than seven times more likely to experience a fetal death as those with any prenatal care (39.6 versus 5.2 fetal deaths per 1,000 live births plus fetal deaths, respectively). During the same time period, black women who received no prenatal care were over four times as likely as those receiving any prenatal care to experience a fetal death (36.9 versus 8.3 fetal deaths per 1,000 live births plus fetal deaths, respectively).

In all maternal age groups, the fetal death rate was consistently higher among women with no prenatal care. The highest fetal death rate (51.8 per 1,000 live births plus fetal deaths) was evident among black mothers under age 20 who had no prenatal care (Figure F6, Figure F7, and Table F7).

<sup>\*\*\*\*</sup> in cell indicates count is greater than 0 and less than 5.

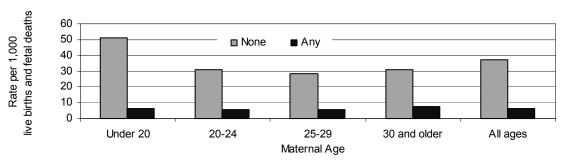
<sup>&</sup>quot;--" Indicates rate is unstable due to small number (<20) of fetal deaths

Figure F6. Fetal Mortality Rates by Prenatal Care Status (None or Any) and Maternal Race Louisiana, 1997-2001 Combined



Fetal death defined as gestational age>=20 weeks or birthweight >=350 grams

Figure F7. Fetal Mortality Rates by Prenatal Care Status (None or Any) and Maternal Age Louisiana, 1997-2001 Combined



Fetal death defined as gestational age>=20 weeks or birthweight >=350 grams

Table F7. Number and Rates<sup>+</sup> of Fetal Deaths by Prenatal Care Status, Race, and Age Louisiana, 1997-2001 Combined

	Age	No C	Care	Any (	Care
Race	Group	Number	Rate	Number	Rate
	Under 20	60	51.1	353	6.2
	20-24	49	30.6	610	6.0
All Races***	25-29	24	28.2	486	5.8
	30 & older	30	31.3	641	7.5
	All ages	172	37.4	2133	6.5
	Under 20	11		115	4.9
	20-24	14		218	4.2
White	25-29	****		266	4.9
	30 & older	10		367	6.3
	All ages	40	39.6	975	5.2
	Under 20	48	51.8	233	7.0
	20-24	34	26.9	382	7.8
Black	25-29	21	34.2	210	7.7
	30 & older	20	28.2	253	10.3
	All ages	130	36.9	1115	8.3

Fate of occurrence per 1,000 live births plus fetal deaths in specified group. Fetal Death defined as gestational age >= 20 

<sup>&</sup>quot;--" Indicates rate is unstable due to small number (<20) of fetal deaths in numerator or denominator

<sup>\*\*\*\*</sup> in cell indicates count is greater than 0 and less than 5.

## **Medical Risk Factors for Complications of Pregnancy**

In 1994, Louisiana began collecting information describing medical risk factors for complications of pregnancy. Because reporting of medical conditions is believed to be incomplete for fetal deaths, caution should be exercised when evaluating these data.

Of the 510 fetal deaths reported in the year 2001, 252 (49.4%) reported no medical risk factors. Among cases specifying medical risk factors for complications of pregnancy resulting in fetal death, the most frequently reported were; Anemia, Diabetes, chronic hypertension, and pregnancy-associated hypertension, with 39, 27, 21, and 19 fetal deaths, respectively.

Hydramnios/Oligohydramnios, previous preterm or small for gestational age babies, and uterine bleeding were also prevalent risk factors for pregnancies that resulted in fetal deaths. A substantial percentage of pregnancies terminating in fetal death (13.5%) were associated with risk factors which were not pre-defined by the categories presented in this report (*Table F8*).

Table F8.

Number of Fetal Deaths by Medical Risk Factors for Complications of Pregnancy and Maternal Race Louisiana, 2001

Medical Risk Factor for Complications of Pregnancy			
	All Races***	White	Black
NO MEDICAL RISK FACTOR NOTED	252	116	130
ANEMIA (HCT <30 \ HGB <10)	39	9	30
DIABETES	27	14	13
HYPERTENSION, CHRONIC	21	5	7
HYPERTENSION, PREGNANCY ASSOCIATED	19	7	12
HYDRAMNIOS\OLIGOHYDRAMNIOS	18	10	11
PREVIOUS PRETERM OR SMALL FOR GESTATIONAL AGE	14	****	11
UTERINE BLEEDING	14	6	8
INCOMPETENT CERVIX	12	****	8
GENITAL HERPES	6	****	***
CARDIAC DISEASE	****	****	****
PREVIOUS INFANT 4000+ GRAMS	****	****	****
ACUTE OR CHRONIC LUNG DISEASE	****	0	0
RENAL DISEASE	0	0	0
OTHER	69	25	41

Fetal deaths defined as gestational age >=20 weeks or birthweight >=350grams

<sup>\*\*\* &</sup>quot;All Races" includes white, black, other, and unknown

<sup>\*\*\*\*</sup> in cell indicates count is greater than 0 and less than 5.

### **Tobacco and Alcohol Use during Pregnancy**

At the time of delivery, women report on tobacco and alcohol use during the pregnancy. Although this information is derived from the fetal death certificate, it should be evaluated with caution because it is subject to error from inaccurate maternal recall. Additionally, both tobacco and alcohol usage are dichotomous categories which do not account for different levels of usage. As examination of tobacco and alcohol use for 2001 resulted in small counts (less than 20), data for 1997 through 2001 were combined to produce five-year rates.

Women who reported smoking or drinking during pregnancy experienced a fetal death more often than women who did not engage in these risk behaviors.

Women who smoked during pregnancy experienced fetal deaths more often than women who did not smoke, at a rate of 8.5 per 1,000 live births plus fetal deaths among reported smokers, compared to 7.0 per 1,000 live births plus fetal deaths among reported non-smokers.

Women who drank alcohol during pregnancy experienced a fetal death more than three times as often as those who did not drink, at a rate of 21.7 per 1,000 live births plus fetal deaths among alcohol drinkers compared to 7.0 in women who reported they did not drink alcohol.

Women who reported both smoking and drinking alcohol during pregnancy had a fetal death rate higher than women in all other tobacco or alcohol use groups, and nearly four times higher than the rate seen in women who reported neither smoking nor drinking alcohol during their pregnancies. Rates were 27.0 fetal deaths per 1,000 live births plus fetal deaths among women who reported both smoking and drinking alcohol, compared to 6.9 fetal deaths per 1,000 live births plus fetal deaths among women who reported neither smoking nor drinking alcohol during their pregnancies (Figure F8, Table F9).

Figure F8. Fetal Mortality Rate by Tobacco and Alcohol Use During Pregnancy Louisiana, 1997-2001 Combined

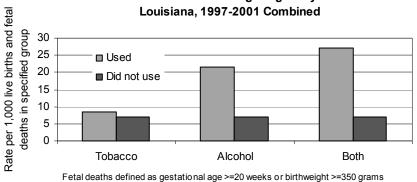


Table F9. Number and Rates<sup>+</sup> of Fetal Deaths by Tobacco and Alcohol Use During Pregnancy, Louisiana, 1997-2001 Combined

	Toba	ссо	Alcoh	nol	Both		
	Number	Rate	Number	Rate	Number Rate		
Used	284	8.5	40	21.7	33	27.0	
Did not use	2093	7.0	2339	7.0	2074	6.9	

\*Rate per 1,000 live births plus fetal deaths in specified group.
Fetal deaths defined as gestational age >=20 weeks or birthweight >=350 grams

#### **CAUSE OF FETAL DEATH**

Given that several factors may contribute to fetal deaths, cause-of-death analyses are important for examining preventable risks. One major limitation of using the cause-of-death data from fetal death certificates is that many fetuses that die are not autopsied or otherwise evaluated, resulting in implausible or misclassified causes of death. Evaluations of fetuses also tend to report cause of death in such a way that the fetus falls in a "catch-all" or non-specific category that prohibits in-depth analysis. For instance, approximately one-quarter (24.9%) of the 522 fetal deaths reported in Louisiana in 2001 were classified under "Other conditions originating in the perinatal period." Nearly another quarter (24.7%) of the fetal deaths were classified under "Fetal death of unspecified cause".

Fetal deaths described in this section include all fetal deaths reported to the Vital Records Registry in 2001, regardless of gestational age or birthweight.

The leading cause of fetal death was "conditions originating in the perinatal period" (745.5 fetal deaths per 100,000 live births plus fetal deaths), the most frequent of these being "fetus affected by complications of placenta, cord and membranes" (231.6 fetal deaths per 100,000 live births plus fetal deaths). The ratio of fetal death caused by complications of placenta, cord and membranes was higher among black women at 289.0 occurrences per 100,000 live births, versus 185.1 in whites.

TableF10 summarizes all fetal deaths reported to Louisiana in 2001 by cause, maternal age, and maternal race.

## Table F10. Number and Ratio<sup>†</sup> of Reported Fetal Deaths by Selected Causes of Death, Age and Race of Mother Louisiana, 2001

							Ma	ternal Ag	е			
Cause of Death ICD-10 Code	Race	Ratio <sup>+</sup>	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.
All causes	All	823.7	537	****	94	153	110	95	55	13	0	13
	White	620.6	228	****	31	47	54	51	29	11	0	****
	Black	1101.0	297	****	63	104	54 ****	40 ****	24	0	0	9
<del> </del>	Other	576.2	12	0	0						0	0
In situ neoplasms, benign neoplasms	All	6.1	****	0	0	****	****	0	0	0	0	0
and neoplasms of uncertain or	White	10.9		0	0			0	0	0	0	0
unknown behavior (D00-D48)	Black	0.0	0	0	0	0	0	0	0	0	0	0
0 11 51 1 (50.1)	Other	0.0	0 ****	0	0	<u>0</u>	0	0	0	0	0	0
Cystic fibrosis (E84)	All	1.5		0	0		0	0	0	0	0	0
	White	0.0	0 ****	0	0	0 ****	0	0	0	0	0	0
	Black	3.7		0	0		0	0	0	0	0	0
0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	Other	0.0	0	0 ****	0	0	0	0	0	0	0	0
Certain conditions originating in	All	745.5	486	****	90	138	99	81	50	13	0	11
the perinatal period (P00-P96)	White	525.3	193	****	30	39	46	39	24	11	0	11
	Black	1045.0	282		60	97 ****	52 ****	38 ****	24	0	0	8
	Other	750.9	11	0	0			****	****		0	0
Fetus affected by maternal	All	41.4	27	0	7 ****	13	0	****	****	0	0	0
conditions that may be unrelated to	White	29.9	11	0	****	5	0	****	****	0	0	0
present pregnancy (P00)	Black	59.3	16	0		8	0			0	0	0
<u> </u>	Other	0.0	0	0	0	0	0	0 ****	0 ****	0	0	0
Fetus affected by maternal	All	27.6	18	0	5 ****	7 ****	0	****	****	0	0	0
hypertensive disorders (P00.0)	White	16.3	6	0	****		0	****	****	0	0	0
	Black	44.5	12	0		5	0			0	0	0
<u> </u>	Other	0.0	0 ****	0	****	0	0	0	0	0	0	0
Fetus affected by maternal	All	1.5		0		0	0	0	0	0	0	0
renal and urinary tract diseases	White	0.0	0	0	0	0	0	0	0	0	0	0
(P00.1)	Black	3.7		0		0	0	0	0	0	0	0
Fatura effects of horses towns 1	Other	0.0	<u>0</u>	0	0	<u>0</u>	0	0	0	0	0	0
Fetus affected by maternal	All	1.5		0	0		-	0	-	0	0	0
infectious and parasitic diseases	White	0.0	0 ****	0	0	0	0	0	0	0	0	0
(P00.2)	Black	3.7		0	0		0	0	0	0	0	0
Fature offented by meetermed injury	Other	0.0 7.7	<u>0</u> 5	0	****	<u>0</u>	0	0	0	0	0	0
Fetus affected by maternal injury	All		C ****	0	****	****						
(P00.5)	White	8.2 7.4	****	0		****	0	0	0	0	0	0
	Black Other	0.0	0	0	0	0	0	0	0	0	0	0
Fature offented by other medical	All	3.1	****	0	0	****	0	****	0	0	0	0
Fetus affected by other medical procedures and maternal conditions	White	5.4	****	0	0	****	0	****	0	0	0	0
•		0.0		0	0		0		0	0	0	0
(P00.7-P00.8)	Black Other	0.0	0	0	0	0	0	0	0	0	0	0
Fature offented by maternal	All		91	****	15	22	20	17	12	****	0	****
Fetus affected by maternal	White	139.6	30	0	CI ****	****	20 11	5	6	****	0	0
complications of pregnancy (P01)	Black	81.7 226.0	61	****	11	20	9	12	6	0	0	****
	Other	0.0		0			-			0	-	0
Fetus affected by incompetent	All	23.0	0 15	0	****	<u>0</u>	0 ****	<u>0</u>	<u>0</u>	0	0	0
• •				-	****	****	****	****	****			
cervix (P01.0)	White Black	19.1 29.6	7 8	0	****	****	****	****	****	0	0	0
	Other	0.0	0	0				0			0	0
Fetus affected by premature rupture		82.8	54	****	0 8	0 15	0 12	0 11	<u>0</u> 5	0	0	0 ****
	All White			0	8 ****	15		****				
of membranes (P01.1)	White	32.7	12	****			8 ****		0	0	0	0 ****
	Black	155.6	42		7	14		9	5	0	0	
Fature offersted by all 1	Other	0.0	****	0	0	0	****	****	0	****	0	0
Fetus affected by oligohydramnios	All	4.6	****	0	0	0		****	0	****	0	0
(P01.2)	White	5.4	****	0	0	0	0 ****		0		0	0
	Black	3.7 0.0		0	0	0		0	0	0	0	0
	Other		0		0		0	0		0	0	0

# Table F10 (continued). Number and Ratio<sup>+</sup> of Reported Fetal Deaths by Selected Causes of Death, Age and Race of Mother Louisiana, 2001

-				Maternal Age								
Cause of Death ICD-10 Code	Race	Ratio+	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.
Fetus affected by ectopic	All	3.1	****	0	0	0	0	0	****	****	0	0
Pregnancy (P01.4)	White	5.4	****	0	0	0	0	0	****	****	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Fetus affected by multiple	All	15.3	10 ****	0	****	****	****	****	****	0	0	0
pregnancy (P01.5)	White	10.9		0		0 ****		0 ****		0	0	0
	Black	22.2	6	0	0		0		0	0	0	0
	Other	0.0	0	0	<u>****</u>	0 ****	<u>0</u>	0	0 ****	0	0	0
Fetus affected by other and	All	10.7	7 ****	0			****	0	****	0	0	0
unspecified maternal complications	White	8.2	****	0	0 ****	0 ****	****	0		0	0	0
of pregnancy (P01.8-P01.9)	Black	14.8		0				0	0	0	0	0
	Other	0.0	0	0 ****	0	0	0	0	0	0 ****	0	****
Fetus affected by complications of	All	231.6	151		21	40	37	28	17	****	0	****
placenta, cord and membranes (P02)	White	185.1	68	0 ****	7	160	17	15	10		0	
	Black	289.0	78		14	24	20	10 ****	6 ****	0 ****	0	****
	Other	341.3	5	0	0	0	0				0	****
Fetus affected by other forms of	All	82.8	54	0	6 ****	14	18	9	5 ****	****	0	
placental separation and hemorrhage	White	57.2	21	0		6	7	5 ****	****	0	0	0 ****
(P02.1)	Black	118.6	32 ****	0	5	8	11			0 ****	0	
	Other	68.3		0	<u>0</u>	0	<u>0</u>	<u>0</u>	0		0	****
Fetus affected by other and	All	35.3	23	0		6 ****		****	5 ****	0	0	****
unspecified morphological and	White	21.8	8	0	0 ****	****	0 ****		****	0	0	****
functional abnormalities of placenta	Black	51.9	14 ****	0				0	****	0	0	
(P02.2)	Other	68.3		0	0	0	<u>0</u>	0 ****		0	0	0
Fetus affected by placental	All	7.7	5	0	0	0	****	****	0	0	0	0
transfusion syndromes (P02.3)	White	13.6	5	0	0	0			0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	<u>0</u>	0	0	0
Fetus affected by prolapsed cord	All	1.5	****	0	0	0	0	0	****	0	0	0
(P02.4)	White	2.7		0	0	0	0	0		0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
Fature offersted by other commences	Other	0.0	0 37	0 ****	0	0	0	0	0	0	0	0
Fetus affected by other compression	All	56.8			5 ****	10 ****	8	6 ****	5	****	0	0
of umbilical cord (P02.5)	White	49.0	18	0 ****	****		****	****	5		0	0
	Black	63.0	17 ****			7		****	0	0	0	0
Fature offerstead by a the angular	Other	136.5		0	<u>****</u>	0	<u>0</u>	****	<u>****</u>	0	0	0
Fetus affected by other and	All	23.0	15	0	****	5 ****	****	****	****	0	0	0
unspecified conditions of umbilical	White	27.2	10 ****	0	****	****				0	0	0
cord (P02.6)	Black	14.8	****	0			0	0 ****	0	0	0	0
Fature of the stand by the standard sta	Other	68.3		0	****	0	0 ****	****	0	0	0	0
Fetus affected by chorioamnionitis	All	24.5	16	0	****	5 ****	****	****	-	0	0	0
(P02.7)	White	13.6 40.8	5 11	0	****	****	****	****	0	0	0	0
	Black Other	0.0	0	_		0	0	0	-	0	-	
Fetus affected by other	All	1.5	****	0	0	0	0	<u>0</u>	0	0	0	0
Complications of labor and delivery	White			_								
•	Black	0.0 3.7	0 ****	0	0	0	0	0 ****	0	0	0	0
(P03)	Other	0.0	0		0	0			0	0	0	
Fetus affected by other and	All	1.5	****	0	0	0	0	0 ****	0	0	0	0
unspecified complications of labor	White		0	_		-	-	0	-	0	0	0
•		0.0 3.7	****	0	0	0	0	****	0			
and delivery (P03.8-P03.9)	Black			0	0					0	0	0
Class fotal available or d f-t-1	Other	0.0	0 ****	0	0	0 ****	0	0	0 ****	0	0	0
Slow fetal growth and fetal	All	4.6	****	0	0		0	0	****	0	0	0
malnutrition (P05)	White	2.7	****	0	0	0 ****	0	0		0	0	0
	Black	7.4		0	0		0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0

# Table F10 (continued). Number and Ratio<sup>+</sup> of Reported Fetal Deaths by Selected Causes of Death, Age and Race of Mother Louisiana, 2001

-				Maternal Age								
Cause of Death ICD-10 Code	Race	Ratio+	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.
Disorders related to short	All	85.9	56	0	13	17	15	6	****	0	0	****
gestation and low birth weight, not	White	43.5	16	0	5	5	****	****	0 ****	0	0	****
elsewhere classified (P07)	Black	148.2	40	0	8	12	12	****		0	0	****
Forter and to be to bright and to be	Other	0.0	0	0	0	0	0	****	0	0	0	0
Extremely low birth weight or	All White	44.5 24.5	29 9	0	7 ****	9 ****	11 ****	0	0	0	0	0
extreme immaturity (P07.0,P07.2)	Black	74.1	20	0	****	6	8	****	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Other low birth weight and preterm	All	41.4	27	0	6	8	****	****	****	0	0	****
(P07.1,P07.3)	White	19.1	7	0	****	****	0	****	0	0	0	****
(* *****, ******)	Black	74.1	20	0	****	6	****	****	****	0	0	****
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Intrauterine hypoxia and birth	All	3.1	****	0	0	****	0	****	0	0	0	0
asphyxia (P20-P21)	White	5.4	****	0	0	****	0	****	0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Intrauterine hypoxia, unspecified	All	3.1	****	0	0	****	0	****	0	0	0	0
(P20.9)	White	5.4	****	0	0	****	0	****	0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0 ****	0	0	0	<u>0</u>	0	0	0	0	0
Other respiratory conditions	All	1.5		0	0	0		0	0	0	0	0
originating in the perinatal period	White	0.0	0 ****	0	0	0	0 ****	0	0	0	0	0
(P23-P28)	Black Other	3.7 0.0	0	0	0	0	0	0	0	0	0	0
Other respiratory system	All	1.5	****	0	0	0	****	0	0	0	0	0
disorders (P26-P27, P28.2-P28.9)	White	0.0	0	0	0	0	0	0	0	0	0	0
uisorucis (1 20-1 21, 1 20.2-1 20.3)	Black	3.7	****	0	0	0	****	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Infections specific to the	All	1.5	****	0	0	****	0	0	0	0	0	0
perinatal period (P35-P39)	White	2.7	****	0	0	****	0	0	0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Congenital cytomegalovirus	All	1.5	****	0	0	****	0	0	0	0	0	0
infection (P35.1)	White	2.7	****	0	0	****	0	0	0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0
Fetal hemorrhage (P50-P54)	All	4.6	****	0	0	0	****	****	0	0	0	0
	White	8.2		0	0	0			0	0	0	0
	Black	0.0	0	0	0	0	0	0	0	0	0	0
Transitary and sains and matchelia	Other All	0.0	0 5	0	0	0	0 ****	<u>0</u>	<u>0</u>	****	0	0
Transitory endocrine and metabolic disorders specific to fetus (P70-	White	7.7 5.4	C ****	0	0	0	****	0	0	0	0	0
P74)	Black	7.4	****	0	0	0	0	****	****	0	0	0
174)	Other	68.3	****	0	0	0	0	0	0	****	0	0
Syndrome of infant of a diabetic	All	7.7	5	0	0	0	****	****	****	****	0	0
mother and neonatal diabetes	White	5.4	****	0	0	0	****	0	0	0	0	0
mellitus (P70.0-P70.2)	Black	7.4	****	0	0	0	0	****	****	0	0	0
,	Other	68.3	****	0	0	0	0	0	0	****	0	0
Other conditions originating in the	All	199.4	130	****	29	38	20	19	14	7	0	****
perinatal period (P80-P96)	White	138.8	51	****	9	8	9	10	6	7	0	****
	Black	274.2	74	****	20	28	10	8	7	0	0	0
	Other	341.3	5	0	0	****	****	****	****	0	0	0
Hydrops fetalis not due to	All	1.5	****	0	****	0	0	0	0	0	0	0
hemolytic disease (P83.2)	White	0.0	0	0	0	0	0	0	0	0	0	0
	Black	3.7	****	0	****	0	0	0	0	0	0	0
	Other	0.0	0	0	0	0	0	0	0	0	0	0

# Table F10 (continued). Number and Ratio<sup>⁺</sup> of Reported Fetal Deaths by Selected Causes of Death, Age and Race of Mother Louisiana, 2001

				Maternal Age									
Cause of Death ICD-10 Code	Race	Ratio+	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.	
Fetal death of unspecified cause	All	197.9	129	****	28	38	20	19	14	7	0	****	
(P95)	White	138.8	51	****	9	8	9	10	6	7	0	****	
	Black	270.5	73	****	19	28	10	8	7	0	0	0	
	Other	341.3	5	0	0	****	****	****	****	0	0	0	
Congenital malformations,	All	70.6	46	0	****	12	9	14	5	0	0	****	
deformations and chromosomal	White	84.4	31	0	****	6	6	12	5	0	0	****	
abnormalities (Q00-Q99)	Black	51.9	14	0	****	6	****	****	0	0	0	****	
	Other	68.3	****	0	0	0	****	0	0	0	0	0	
Congenital malformations of nervous	All	15.3	10	0	0	****	****	****	****	0	0	0	
system (Q00-Q07)	White	19.1	7	0	0	****	****	****	****	0	0	0	
	Black	7.4	****	0	0	****	0	****	0	0	0	0	
	Other	68.3	0	0	0	0	****	0	0	0	0	0	
Anencephaly and similar	All	12.3	8	0	0	****	****	****	****	0	0	0	
Malformations (Q00)	White	16.3	6	0	0	****	****	****	****	0	0	0	
	Black	3.7	****	0	0	0	0	****	0	0	0	0	
	Other	68.3	0	0	0	0	****	0	0	0	0	0	
Reduction deformities of the brain	All	1.5	****	0	0	****	0	0	0	0	0	0	
(Q04.0-Q04.3)	White	0.0	0	0	0	0	0	0	0	0	0	0	
	Black	3.7	****	0	0	****	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Spina bifida (Q05)	All	1.5	****	0	0	0	****	0	0	0	0	0	
. , ,	White	2.7	****	0	0	0	****	0	0	0	0	0	
	Black	0.0	0	0	0	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Congenital malformations of heart	All	3.1	****	0	0	***	0	****	0	0	0	0	
(Q20-Q24)	White	2.7	****	0	0	0	0	****	0	0	0	0	
	Black	3.7	****	0	0	****	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Other congenital malformations of	All	1.5	****	0	0	0	0	0	****	0	0	0	
circulatory system (Q25-Q28)	White	2.7	****	0	0	0	0	0	****	0	0	0	
circulatory system (420-420)	Black	0.0	0	0	0	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Congenital malformations of urinary	All	3.1	****	0	0	****	0	0	****	0	0	0	
system (Q60-Q64)	White	5.4	****	0	0	****	0	0	****	0	0	0	
	Black	0.0	0	0	0	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Renal agenesis and other reduction	All	3.1	****	0	0	****	0	0	****	0	0	0	
defects of kidney (Q60)	White	5.4	****	0	0	****	0	0	****	0	0	0	
delects of Nulley (Q00)	Black	0.0	0	0	0	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Congenital malformations and	All	1.5	****	0	0	0	****	0	0	0	0	0	
deformations of musculoskeletal	White	2.7	****	0	0	0	****	0	0	0	0	0	
	Black	0.0	0	0	0	0	0	0	0	0	0	0	
system, limbs and integument		0.0	-	-									
(Q65-Q85)	Other	13.8	9	0	****	0 ****	<u>0</u>	0 ****	0	0	0	****	
Other congenital malformations	All		****			****		****				****	
(Q86-Q89)	White	10.9		0	0 ****	****	0	****	0	0	0	****	
	Black	18.5	5	0					0	0	0		
Multiple consonitely If	Other	0.0	0	0	0 ****	0 ****	<u>0</u>	0 ****	0	0	0	0 ****	
Multiple congenital malformations,	All	12.3 8.2	8 ****	0		****		****	0	0	0		
not elsewhere classified (Q89.7)		. 82	****	0	0	***	0	***	0	0	0	0	
	White		ا ـ	_	grana.	district.	4.4.4.	4.4.4.1	_	_	_		
	Black	18.5	5	0	****	****	****	****	0	0	0	****	
	Black Other	18.5 0.0	0	0	0	0	0	0	0	0	0	0	
All other congenital malformations	Black Other All	18.5 0.0 1.5	0	0	0	0	0	0	0	0	0	0 ****	
All other congenital malformations (Q86-Q87,Q89.0-Q89.3,Q89.8-Q89.9)	Black Other All White	18.5 0.0 1.5 2.7	0 **** ***	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	**** ****	
•	Black Other All	18.5 0.0 1.5	0	0	0	0	0	0	0	0	0	0 ****	

### Table F10 (continued). Number and Ratio<sup>†</sup> of Reported Fetal Deaths by Selected Causes of Death, Age and Race of Mother Louisiana, 2001

Cause of Death ICD-10 Code		Ratio+	All	Maternal Age									
	Race			Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.	
Chromosomal abnormalities, not	All	32.2	21	0	****	****	****	8	****	0	0	0	
elsewhere classified (Q90-Q99)	White	40.8	15	0	****	****	****	8	****	0	0	0	
	Black	22.2	6	0	****	****	****	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Down's syndrome (Q90)	All	4.6	****	0	0	0	0	****	****	0	0	0	
	White	8.2	****	0	0	0	0	****	****	0	0	0	
	Black	0.0	0	0	0	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Edward's syndrome (Q91.0-Q91.3)	All	6.1	****	0	****	****	0	****	0	0	0	0	
	White	2.7	****	0	0	0	0	****	0	0	0	0	
	Black	11.1	****	0	****	****	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Patau's syndrome (Q91.4-Q91.7)	All	3.1	****	0	****	0	0	****	0	0	0	0	
	White	2.7	****	0	0	0	0	****	0	0	0	0	
	Black	3.7	****	0	****	0	0	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	
Other chromosomal abnormalities,	All	18.4	12	0	****	****	****	****	****	0	0	0	
not elsewhere classified (Q92-Q99)	White	27.2	10	0	****	****	****	****	****	0	0	0	
	Black	7.4	****	0	0	****	****	0	0	0	0	0	
	Other	0.0	0	0	0	0	0	0	0	0	0	0	

Note: Not all selected causes of death are listed in Table F10 as some did not contain any counts. The complete list of selected causes for Table F10 may be found in the "Technical Notes Section".

<sup>+</sup>Ratio per 100,000 live births

\*\*\*\* In cell indicates count is greater than 0 and less than 5.

<sup>&</sup>lt;sup>1</sup> National Center for Health Statistics, Model State Vital Statistics Act and Regulations (1992 Revision):8.

<sup>&</sup>lt;sup>2</sup> National Center for Health Statistics, "State definitions and reporting requirements for live births, fetal deaths and induced terminations of pregnancy" (1997 Revision):28.

<sup>&</sup>lt;sup>3</sup> National Center for Health Statistics, "Instruction Manual Part 12" (1993):33-35.